

REMARKS

The Remarks are in response to the Office action mailed May 13, 2008. Claims 1 and 3-10 remain pending in the application. Applicant appreciates Examiner's careful review of the present application.

Response to Arguments

On page 2 of the current Office action, Examiner asserts that the claimed features "a computing unit configured for calculating material requirement quantities and available inventories according to obtained data, and for determining quantities of material shortage according to the material requirement quantities and the available inventories" of claim 1 is taught by Horne. Applicant respectfully disagrees for the following reasons:

Referring to col. 4, lines 21-24, Horne discloses that "[t]he supply data stored in the database 110 generally describe the attributes of the supply to be managed by the supply system 100. Specifically, the supply data include information such as the current inventory of the supply, expected increases to the supply inventory (such as new shipments), and expected reductions in the supply inventory (such as the use of the supply in the creation of a product)." From the disclosures above, Applicant submits that, even assuming the "supply data" of Horne can be considered the equivalent to the "available inventories" of the present application, Horne fails to teach or suggest the features relating to "calculating material requirement quantities" and "determining quantities of material shortage according to the material requirement quantities and the available inventories" as claimed in claim 1 of the present application.

Furthermore, referring to col. 4, lines 46-48, Horne discloses that "the MRP system 130 generally provides a better forecast of component requirements based on the production schedules of the parent item." Even assuming that the "forecast of

component requirements” can be considered the equivalent to the “determining quantities of material shortage” of the present application, in claim 1 of the present application, the quantities of material shortage is determined *according to the material requirement quantities and the available inventories*. In Horne, the forecast of component requirements is *based on the production schedules of the parent item*. Thus, the way of determining quantities of material shortage of claim 1 of the present application is patentably distinct from the forecasting of component requirements of Horne.

Accordingly, Applicant submits that there is no teaching or suggestion in Horne of the features “a computing unit configured for calculating material requirement quantities and available inventories according to obtained data, and for determining quantities of material shortage according to the material requirement quantities and the available inventories” as claimed in claim 1 of the present application.

In addition, Applicant respectfully disagrees that the claimed features “a material adjustment unit configured for allotting the related distributed inventories to replenish the available inventories when it is necessary to adjust the distributed inventories” of claim 1, is taught by Horne.

Referring to col. 11, lines 38-59, Horne discloses that “[t]he substitution feature within supply system 100 allows the user to schedule substitute components in assemblies on the occasions where there is insufficient availability of the primary component and insufficient lead-time to acquire it. There are three methods by which substitution logic may be applied: permissive, use-until-exhaust, and configurable. Permissive substitution permits an unavailable prime part to be replaced with a predefined alternative part(s), as well as a transfer part that is purchased at the source site, while respecting transfer lead-time. ...The Use-Until-Exhaust substitution permits an unavailable prime part to be replaced with a predefined alternative part after the supply of the prime part has been exhausted. ... The configurable substitution makes it

possible for more sophisticated configuration rules to be used to determine what to do when a particular assembly must be ordered and there are alternative ways of building it.” According to these disclosures, it can be seen that, *in Horne, the alternative ways to deal with impending shortages include three ways: permissive, use-until-exhaust, and configurable, which do not include the way of “allotting the related inventories that have been distributed to replenish shortage.”* That is, Horne fails to teach or disclose the way of allotting the related distributed inventories to replenish shortage, as recited in claim 1 of the present application.

Horne further discloses “[i]f the prime part can not satisfy the demand, the supply system 100 performs a substitution. In performing a substitution at or outside lead time, the supply system 100 uses a predefined alternative part that has excess supply after all its own demands have been fulfilled. If substitution is not feasible, the supply system 100 plans a PSO for the prime part” (col. 12, lines 20-28). According to the disclosures immediately above, it is further indicated that, in Horne, the supply system 100 uses a predefined *alternative part* that has excess supply after all its own demands have been fulfilled to replenish shortage, not uses the way of *allotting the related inventories that have been distributed* to replenish shortage.

Accordingly, Horne fails to teach or suggest the features “a material adjustment unit configured for allotting the related distributed inventories to replenish the available inventories when it is necessary to adjust the distributed inventories,” as recited in claim 1.

Claim Rejections Under 35 U.S.C. 103

Claims 1 and 3-10 were rejected under 35 U.S.C. 103(a) as being unpatentable over Horne, Pat. No. US 7,058,587.

Applicant respectfully traverses and requests reconsideration and removal of the rejections and allowance of claims 1 and 3-10, for at least the following reasons:

Claims 1-4

Claim 1 recites in part:

“a computing unit configured for calculating material requirement quantities and available inventories according to obtained data, and for determining quantities of material shortage according to the material requirement quantities and the available inventories.”

Applicant submits that Horne does not teach, or otherwise suggest the invention having the above-described feature as set forth in claim 1.

Referring to col. 4, lines 21-24, Horne discloses that “[t]he supply data stored in the database 110 generally describe the attributes of the supply to be managed by the supply system 100. Specifically, the supply data include information such as the current inventory of the supply, expected increases to the supply inventory (such as new shipments), and expected reductions in the supply inventory (such as the use of the supply in the creation of a product).” From the disclosures above, Applicant submits that, even assuming the “supply data” of Horne can be considered the equivalent to the “available inventories” of the present application, Horne fails to teach or suggest the features relating to “calculating material requirement quantities” and “determining quantities of material shortage according to the material requirement quantities and the available inventories” as claimed in claim 1 of the present application.

In addition, referring to col. 4, lines 46-48, Horne discloses that “the MRP system 130 generally provides a better forecast of component requirements based on the production schedules of the parent item.” Even assuming that the “forecast of component requirements” can be considered the equivalent to the “determining quantities of material shortage” of the present application, however, in claim 1 of the present application, the quantities of material shortage is determined ***according to the material requirement quantities and the available inventories***. In Horne, the forecast of component requirements is ***based on the production schedules of the parent item***.

Thus, the way of determining quantities of material shortage of claim 1 of the present application is patentably distinct from the way of forecast of component requirements of Horne.

Furthermore, Horne discloses that “[...] When determining the Possible Date, the RESO 300 may determine an Available Date. The Available Date is calculated as the Supply planner 200 run date plus the longest lead-time of any shortage part. If the Possible Date is equal to the Supply planner 200 run date, this means that there are no shortage parts, and the organization has, in current inventory, all of the parts required to satisfy the Schedule Sequence Number. If the Available Date is greater than the Need Date for the Schedule Sequence Number then there is a part shortage.’ (col. 34, line 6-15) According to the disclosure, Applicant acknowledges that a method for determining whether shortage occurs is disclosed by Horne. However, in Horne, parts shortages are determined by comparing dates, such as a possible date and an available date etc, and not by the claimed feature of the “computing unit” of claim 1. The computing unit determines whether material shortages occur *by calculating material requirement quantities and available inventories*. Such feature is supported by at least paragraph [0013] of the present application, and not mentioned and suggested by Horne.

Accordingly, Applicant submits that Horne does not teach or suggest all of the features “a computing unit configured for *calculating material requirement quantities and available inventories according to obtained data, and for determining quantities of material shortage according to the material requirement quantities and the available inventories*,” as recited in claim 1 of the present application.

Furthermore, claim 1 recites in part:

“a material adjustment unit configured for allotting the related distributed inventories to replenish the available inventories when it is necessary to adjust the distributed inventories.”

Applicant submits that Horne does not teach, or otherwise suggest the invention having the above-described feature as set forth in claim 1.

Referring to col. 11, lines 38-59, Horne discloses that “[t]he substitution feature within supply system 100 allows the user to schedule substitute components in assemblies on the occasions where there is insufficient availability of the primary component and insufficient lead-time to acquire it. There are three methods by which substitution logic may be applied: permissive, use-until-exhaust, and configurable. Permissive substitution permits an unavailable prime part to be replaced with a predefined alternative part(s), as well as a transfer part that is purchased at the source site, while respecting transfer lead-time. ...The Use-Until-Exhaust substitution permits an unavailable prime part to be replaced with a predefined alternative part after the supply of the prime part has been exhausted. ... The configurable substitution makes it possible for more sophisticated configuration rules to be used to determine what to do when a particular assembly must be ordered and there are alternative ways of building it.” According to these disclosures, it can be seen that, *in Horne, when shortage occurs, three ways will be applied: permissive, use-until-exhaust, and configurable*. However, Horne does not disclose or suggest the way of “***allotting the related distributed inventories to replenish shortage***” as claimed in claim 1 of the present application.

Horne further discloses “[i]f the prime part can not satisfy the demand, the supply system 100 performs a substitution. In performing a substitution at or outside lead time, the supply system 100 uses a predefined alternative part that has excess supply after all its own demands have been fulfilled. If substitution is not feasible, the supply system 100 plans a PSO for the prime part” (col. 12, lines 20-28). From the disclosures immediately above, it is further indicated that, in Horne, the supply system 100 uses a predefined ***alternative part*** that has excess supply after all its own demands have been fulfilled to replenish shortage, not uses the method of ***allotting the related inventories that have been distributed*** to replenish shortage.

In addition, Horne discloses “[A] procurement system 70 is generally a simple yet powerful client/server system. Based on information that has been imported from the host MRP system, the procurement system 70 asks suppliers to commit to projected requirements. Requests are sent in the form of an electronic forecast that asks, ‘Can someone supply these parts, in these quantities, on these dates?’ The procurement system 70 collects and analyzes all supplier responses relative to scheduled projections and flex ranges, reporting exceptions as necessary. The procurement system 70 treats all supplier responses as commitments, whether a request can be met or not. In the event of an exception, buyers can use the procurement system 70 to adjust the commitment until the shortage is resolved.” (col. 5, lines 66-67, and col. 6, lines 1-13) According to the disclosure above, Applicant acknowledges that Horne discloses a method of replenishing shortage by purchasing the shortage material. Horne further discloses that “[o]nce a supply quantity of a given part has been allocated to a demand, that quantity is no longer available for allocation to any other demand” (col. 23, lines 21-24). Accordingly, Applicant asserts that the disclosure of Horne definitely indicates that the “reallocated method” is not adopted.

Accordingly, Applicant submits that Horne does not teach or suggest the limitation of “a material adjustment unit configured for *allotting the related distributed inventories to replenish the available inventories* when it is necessary to adjust the distributed inventories,” as recited in claim 1 of the present application.

For at least the reasons above, Applicant submits that Horne does not disclose, teach, or suggest the invention having the above-described features, as currently set forth in claim 1. Accordingly, claim 1 is unobvious and patentable over Horne under 35 U.S.C. § 103 (a).

Since Applicant has canceled claim 2 without prejudice, the rejection relating to claim 2 is now moot.

Claims 3-4 depend from independent claim 1, and respectively recite additional subject matter. Therefore, Applicant submits that claims 3-4 are also allowable.

Claims 5-8 and 10

Claim 5 recites in part:

“calculating a shortage quantity of the material; [and]

allotting the distributed inventory of the material if it is necessary to adjust the distributed inventory”.

For at least related reasons similar and corresponding to those asserted above in relation to claim 1, Applicant submits that Horne does not disclose, teach, or even suggest the invention having the above-described features, as currently set forth in claim 5. Accordingly, claim 5 is unobvious and patentable over Horne under 35 U.S.C. §103 (a).

Claims 6-8 and 10 depend from independent claim 5, and respectively recite additional subject matter. Therefore, Applicant submits that claims 6-8 and 10 are also allowable.

Claim 9

Claim 9 recites in part:

“(c) calculating a shortage quantity of said material in inventory based upon a scheduled production plan of the order; [and]

(d) if shortage, purchasing the material or reallocating the material, which is currently designated to another manufacturing order, to the order”.

For at least related reasons similar and corresponding to those asserted above in relation to claims 1 and 5, Applicant submits that Horne does not disclose, teach, or even suggest the invention having the above-described features, as currently set forth in claim 9. Accordingly, claim 9 is unobvious and patentable over Horne under 35 U.S.C. §103 (a).

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CONCLUSION

Applicant submits that the foregoing Response place this application in condition for allowance. If Examiner believes that there are any issues that can be resolved by a telephone conference, or that there are any informalities that can be corrected by an Examiner's amendment, please call the undersigned at 714.626.1224.

Respectfully submitted,
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By /Frank R. Niranjana/ Date: June 26 , 2008

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